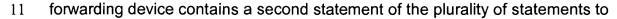


WHAT IS CLAIMED IS:

1	1. A method for determining differences in at least a part of sets of candidate
2	configuration information, comprising:
3	a) accepting at least a part of a selected one of at least one set of
4	configuration information for a data forwarding device;
5	b) accepting at least a part of a set of candidate configuration information
6	for the data forwarding device; and
7	c) determining differences, if any, between
8	- the at least the part of the set of candidate configuration
9	information for the data forwarding device, and
10	- the at least the part of the selected one of the at least one set of
11	configuration information for the data forwarding device.
1	The method of claim 1 wherein the selected one of at least one set of
2	configuration information for a data forwarding device is a most recently
3	committed set of configuration information for the data forwarding device.
J	committee oot of comigaration information for the data forwarding devices.
1	3. The method of claim 1 wherein the selected one of at least one set of
2	configuration information for a data forwarding device is selected by a user.
1	4. The method of claim 1 wherein the set of candidate configuration information
2	for the data forwarding device includes a plurality of statements,
3	wherein a first statement of the plurality of statements of the set of
4	candidate configuration information for the data forwarding device contains a
5	second statement of the plurality of statements to define at least a part of a
6	hierarchical configuration,
7	wherein the selected one of the at least one set of configuration
8	information for the data forwarding device includes a plurality of statements, and
9	wherein a first statement of the plurality of statements of the

selected one of the at least one set of configuration information for the data



- define at least a part of a hierarchical configuration.
- 5. The method of claim 4 wherein the at least the part of the set of candidate
- 2 configuration information only includes a defined first statement and any of the
- 3 plurality of statements that are descendants of the defined first statement in the
- 4 hierarchical configuration, and
- 5 wherein the at least the part of the selected one of the at least one
- 6 set of configuration information includes a corresponding first statement and any
- 7 of the plurality of statements that are descendants of the defined first statement
- 8 in the hierarchical configuration.
- 1 6. The method of claim 5 wherein the defined first statement is defined based on
- 2 a statement of the hierarchical candidate configuration information on which a
- 3 user is presently working.
- 7. The method of claim 5 wherein the defined first statement is defined by a user
- 2 input.
- 1 8. The method of claim 4 wherein the hierarchical configuration information
- 2 includes at least two categories at a first hierarchical level, and
- wherein the at least two categories are selected from a group of
- 4 data forwarding device configuration categories consisting of:
- 5 A) chassis configuration information:
- 6 B) class-of-service configuration information;
- 7 C) firewall configuration information;
- 8 D) forwarding-options configuration information;
- 9 E) groups configuration information;
- F) interfaces configuration information;
- G) policy-options configuration information;
- 12 H) protocols configuration information;

13	I) routing-instances configuration information;
14	J) routing-options configuration information;
15	K) network management protocol configuration information; and
16	L) system configuration information.
1	O. The method of claim 4 wherein the hierarchical configuration information
1	9. The method of claim 4 wherein the hierarchical configuration information
2	includes at least two categories at a given hierarchical level, the method further
3	comprising:
4	d) associating a predetermined permission value with a user that is
5	logged in; and
6	e) determining whether the logged in user is permitted to access one of
7	the at least two categories of configuration information based on the
8	predetermined permission.
1	10. The method of claim 1 wherein the act of accepting at least a part of a
2	selected one of at least one set of configuration information for a data forwarding
3	device is performed by accessing a storage device of the data forwarding device,
4	wherein the act of accepting at least a part of a set of candidate
5	configuration information for the data forwarding device is performed by
6	accessing a storage device of the data forwarding device; and
7	wherein the act of determining differences, if any, between
8	- the at least the part of the set of candidate configuration
9	information for the data forwarding device, and
10	- the at least the part of the selected one of the at least one set of
11 ·	configuration information for the data forwarding device,
12	is performed by a component of the data forwarding device.

- 1 11. The method of claim 1 wherein the set of candidate configuration information
- 2 for the data forwarding device includes a plurality of statements, at least some of
- 3 which define parameter values,

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4	wherein the selected one of the at least one set of configuration
5	information for the data forwarding device includes a plurality of statements, at
6	least some of which define parameter values, and
7	wherein the act of determining differences, if any, between
8	- the at least the part of the set of candidate configuration
9	information for the data forwarding device, and
10	- the at least the part of the selected one of the at least one
11	set of configuration information for the data forwarding
12	device,
13	considers a selected one of (a) statements only, (b) parameter values only, and
14	(c) statements and parameter values.
1	12. A machine readable medium having stored thereon:
2	 a) at least a part of a set of candidate configuration information for the
3	data forwarding device; and
4	b) indicators for indicating differences between
5	 the at least a part of the set of candidate configuration information
6	for the data forwarding device, and
7	 at least a part of a selected one of at least one set of
8	configuration information for the data forwarding device.
1	13. In a data forwarding device, a facility for checking at least a part of a set of
2	candidate configuration information, the facility comprising:
3	a) a storage device for storing at least one set of configuration information
4	for the data forwarding device;
5	b) an input facility for
6	i) accepting at least a part of a selected one of the at least one set
7	of configuration information for a data forwarding device, and
,	or communication into mandel for a data to main and action and

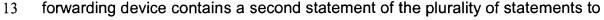
information for the data forwarding device; and

ii) accepting at least a part of a set of candidate configuration

10	c) a configuration comparison facility for determining differences, if any,
11	between
12	- the at least the part of the set of candidate configuration
13	information for the data forwarding device, and
14	- the at least the part of the selected one of the at least one set of
15	configuration information for the data forwarding device.
1	14. A method for determining differences in at least a part of sets of
2	configuration information, comprising:
3	a) accepting at least a part of a first selected one of at least two sets of
4	configuration information for a data forwarding device;
5	b) accepting at least a part of a second selected one of the at least two
6	sets of configuration information for the data forwarding device; and
7	c) determining differences, if any, between
8	 the first selected one of the at least two sets of configuration
9	information for a data forwarding device, and
10	 the second selected one of the at least two sets of configuration
11	information for a data forwarding device.
1	15. The method of claim 14 wherein the first selected one of the at least two sets
2	of configuration information for a data forwarding device includes a plurality of
3	statements,
4	wherein a first statement of the plurality of statements of the first
5	selected one of the at least two sets of configuration information for a data
6	forwarding device contains a second statement of the plurality of statements to
7	define at least a part of a hierarchical configuration,
8	wherein the second selected one of the at least two sets of
9	configuration information for a data forwarding device includes a plurality of
10	statements, and
11	wherein a first statement of the plurality of statements of the second

selected one of the at least two sets of configuration information for a data





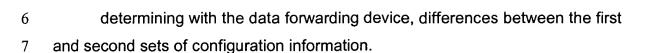
- define at least a part of a hierarchical configuration.
- 1 16. The method of claim 15 wherein the at least the part of the first selected one
- 2 of the at least two sets of configuration information for a data forwarding device
- 3 only includes a defined first statement and any of the plurality of statements that
- 4 are descendants of the defined first statement in the hierarchical configuration,
- 5 and
- 6 wherein the at least the part of the second selected one of the at
- 7 least two sets of configuration information for a data forwarding device includes a
- 8 corresponding first statement and any of the plurality of statements that are
- 9 descendants of the defined first statement in the hierarchical configuration.
- 1 17. The method of claim 16 wherein the defined first statement is defined by a
- 2 user input.
- 1 18. The method of claim 15 wherein the hierarchical configuration information
- 2 includes at least two categories at a first hierarchical level, and
- wherein the at least two categories are selected from a group of
- 4 data forwarding device configuration categories consisting of:
- 5 A) chassis configuration information;
- 6 B) class-of-service configuration information;
- 7 C) firewall configuration information;
- 8 D) forwarding-options configuration information;
- 9 E) groups configuration information;
- F) interfaces configuration information;
- G) policy-options configuration information;
- 12 H) protocols configuration information;
- 1) routing-instances configuration information;
- J) routing-options configuration information;
- 15 K) network management protocol configuration information; and





1	19. The method of claim 14 wherein the act of accepting at least a part of the
2	first selected one of the at least two sets of configuration information for the data
3	forwarding device is performed by accessing a storage device of the data
4	forwarding device,
5	wherein the act of accepting at least a part of the second selected
6	one of the at least two sets of configuration information for the data forwarding
7	device is performed by accessing a storage device of the data forwarding device,
8	and
9	wherein the act of determining differences, if any, between
10	- the first selected one of the at least two sets of
11	configuration information for the data forwarding device, and
12	- the second selected one of the at least two sets of
13	configuration information for the data forwarding device,
14	is performed by a component of the data forwarding device.
1	20. The method of claim 14 wherein the first selected one of the at least two sets
2	of configuration information for a data forwarding device includes a plurality of
3	statements, at least some of which define parameter values,
4	wherein the second selected one of the at least two sets of
5	configuration information for the data forwarding device includes a plurality of
6	statements, at least some of which define parameter values, and
7	wherein the act of determining differences, if any, between
8	- the first selected one of the at least two sets of
9	configuration information for the data forwarding device, and
10	 the second selected one of the at least two sets of
11	configuration information for the data forwarding device,
12	considers a selected one of (a) statements only, (b) parameter values only, and
13	(c) statements and parameter values.

1	21. A machine readable medium having stored thereon:
2	a) at least two sets of configuration information for a data forwarding
3	device; and
4	b) indicators for indicating differences between
5	- a first selected one of the at least two sets of configuration
6	information for the data forwarding device, and
7	- a second selected one of the at least two sets of configuration
8	information for the data forwarding device.
1	22. In a data forwarding device, a facility for comparing at least a part of sets of
2	configuration information, the facility comprising:
3	 a) a storage device for storing at least two sets of configuration
4	information for the data forwarding device;
5	b) an input facility for
6	i) accepting at least a part of a first selected one of the at least two
7	sets of configuration information for the data forwarding device, and
8	ii) accepting at least a part of a second selected one of the at least
9	two sets of configuration information for the data forwarding device;
10	and
11	c) a configuration comparison facility for determining differences, if any,
12	between ·
13	- the first selected one of the at least two sets of configuration
14	information for the data forwarding device, and
15	- the second selected one of the at least two sets of configuration
16	information for the data forwarding device.
1	23. A method comprising:
2	receiving with a data forwarding device, a first set of configuration
3	information for the data forwarding device;
4	receiving with the data forwarding device, a second set of configuration
5	information for the data forwarding device;



- 1 24. The method according to claim 23, wherein the data forwarding device is a 2 router.
- 1 25. A data forwarding device comprising:
- a memory storing a first set of configuration information and a second set of configuration information for the data forwarding device;
- a processing module for determining differences between the first and second sets of configuration information stored in the memory.
- 1 26. A data forwarding device comprising:
- 2 a plurality of data interfaces for connection to respective data lines;
- a mechanism for forwarding data from one data interface to another data interface;
- 5 a user interface for entering configuration information;
- a memory storing a first set of configuration information and a second set of configuration information;
- a processing module for determining differences between the first and second sets of configuration information stored in the memory.